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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/777,456	02/12/2004	James M. Cullen	82126	2299

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EXAMINER	
LIEU, JULIE BICHNGOC	
ART UNIT	PAPER NUMBER
2612	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/777,456	CULLEN ET AL.	
	Examiner	Art Unit	
	Julie Lieu	2612	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *02 January 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *11-28 and 34-54* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *11,12, 14-18, 20-28, 34, 35, 37-45, and 47-54* is/are rejected.

7)☒ Claim(s) *13,19,36 and 46* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This Office action is in response to Applicant's afterfinal amendment filed July 09, 2008. claims 1-10 and 29-33 have been canceled.

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 103

3. Claims 11, 16-18, 20-28, 34, 35, 37-39, 44, 45, and 47-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kerr et al. (US 2001/0014377) in view of Nowaczyk (US Patent No. 6,096,153).

As to claim 11, refer to figure 13, Kerr et al. (hereinafter as Kerr) teaches a tag comprising:

an inlay (fig. 13) comprising:

i. a carrier sheet 30,

ii. an antenna 40, and

iii. a wireless communication device 60.

Kerr discloses

a. a top plastic extrudate member 70 and

b. a bottom plastic extrudate member 20.

Kerr fails to disclose the bottom plastic extrudate member 20 being shaped to include a cavity adapted to receive antenna 40 and wireless communication device 60, wherein the top and the bottom plastic extrudate member cooperatively encapsulate the tag circuit.

However, Nowaczyk discloses the concept of forming a cavity in the bottom plastic extrude to provide a protective housing for a tag resonance circuit. Therefore, would have been obvious to one skilled in the art to house the tag inlay of Kerr's in Nowaczyk's housing because such housing would provide additional protection for the inlay than just the top and bottom extrudate 70 and 20 disclosed in Kerr.

As to claim 16, refer to figure 13, Kerr et al. (hereinafter as Kerr) teaches a tag comprising:

a. an inlay (fig. 13) comprising:

i. a carrier sheet 30,

ii. an antenna 40, and

iii. a wireless communication device 60.

Kerr discloses

b. a top plastic extrudate member 70 and

c. a bottom plastic extrudate member 20.

Kerr fails to disclose a plastic casing comprising:

i. a bottom member shaped to define a longitudinal cavity, and

ii. a top member applied to the bottom member to at6 least partially include the longitudinal cavity.

However, Nowaczyk discloses the concept of providing such plastic casing to provide a protective housing for a tag resonance circuit. Therefore, would have been obvious to one skilled in the art to house the inlay of Kerr's in Nowaczyk's housing because such housing would provide additional protection for the inlay than just the top and bottom extrudate 70 and 20 disclosed in Kerr.

As to claim 17, in Kerr, the wireless communication device is a radio frequency (RF) communication device.

As to claim 18, the antenna in the combined system of Kerr and Nowaczyk is printed onto carrier sheet 30.

As to claim 20, the plastic casing of the combined device of Kerr and Nowaczyk comprises a mounting adhesive 110 coupled to the plastic casing (para. 0047 of Kerr's)

As to claim 21, the wireless communication device 60 in the combined system of Kerr and Nowaczyk's is in the form of an integrated circuit (IC) chip which is conductively bonded to antenna 40 (fig. 13 of Kerr).

As to claim 22, though neither Kerr nor Nowaczyk discloses that the antenna used in the combined system is a bilaterally symmetrical dipole antenna, the use of a dipole antenna in an RFID tag is very conventional in the art and further a dipole antenna is conventionally bilaterally symmetrical. Therefore, it would have been obvious to one skilled in the art to use a bilaterally symmetrical dipole antenna in the combined device because it is conventional.

As to claim 23, one skilled in the art would have readily recognized placing the inlets in Kerr along the longitudinal cavity of housing 28 in Nowaczyk. It follows then that one skilled in the art would have readily recognized using the correct-sized housing for the RFID tag of Kerr,

thus, the RIFD tag would extend the entire length of the bottom member 46 because it is not necessary to make the housing much larger than the RFID device to waste the material.

As to claim 24, referring to fig. 5 of Nowaczyk, the longitudinal cavity is generally U-shaped in longitudinal cross-section.

As to claim 25, the top member 46 is a flat sheet affixed to the bottom member 28.

As to claim 26, refer to figure 13, Kerr et al. (hereinafter as Kerr) teaches a tag comprising:

a. an inlay (fig. 13) comprising:

i. a carrier sheet 30,

ii. an antenna 40, and

iii. a wireless communication device 60.

Kerr discloses

b. a top plastic extrudate member 70 and

c. a bottom plastic extrudate member 20.

Kerr fails to disclose a plastic casing comprising:

i. a bottom member shaped to define a longitudinal cavity, and

ii. a top member applied to the bottom member to at least partially include the longitudinal cavity.

However, Nowaczyk discloses the concept of providing such plastic casing to provide a protective housing for a tag resonance circuit. Therefore, would have been obvious to one skilled in the art to house the inlay of Kerr's in Nowaczyk's housing because such housing would

provide additional protection for the inlay than just the top and bottom extrudate 70 and 20 disclosed in Kerr.

As to claim 27, in Nowaczyk's device, the longitudinal cavity extends only a portion of the length of the bottom member. See fig. 2 or 3.

As to claim 28, referring to figure 2 of Nowaczyk's the longitudinal cavity is spaced inwardly from both ends of the bottom member 42.

As to claim 34, Kerr discloses a method of continuously manufacturing a plurality of tags, comprising the steps of:

a. providing a single continuous strip 20

b. depositing a continuous supply of inlays (fig. 13) into the continuous strip 20,

c. the continuous supply of inlays comprising a carrier web 30, a plurality of antennae 40 disposed on the carrier web 30 at spaced intervals (fig. 13), and a wireless communication device 60 coupled to each of the antennae (fig. 13),

c. applying a cover 70 over the continuous supply of inlays (fig. 13)

d. cutting the continuous supply of inlays and the single continuous strip between successive antennae to yield individual tag (this is inherent because each of RFID devices is for use on separate item or individual).

Kerr fails to disclose that the single continuous strip is shaped to include a continuous longitudinal cavity along its entire length. However, However, Nowaczyk discloses the concept of providing such housing with continuous longitudinal cavity to provide a protective housing for a tag resonance circuit. Therefore, would have been obvious to one skilled in the art to house

the inlay of Kerr's in Nowaczyk's housing because such housing would provide additional protection for the inlay than just the top and bottom extrudate 70 and 20 disclosed in Kerr's.

As to claim 35, though not disclose in Kerr, one skilled in the art would have readily recognized that cutting the strip of tags to separate them, it would be desirable to insure that the RFID device is secured within the casing.

As to claim 37, Kerr discloses coupling an adhesive 110 to the underside of said single continuous strip (see para. 0047). Though Kerr fails to disclose that the step of mounting the adhesive is before the cutting step, it would have been obvious to one of ordinary skill in the art to do so because it would be a lot more time consuming to apply the adhesive on each individual inlay housing than to apply it on the web all at once.

As to claim 38, cover 70 comprises a fiat sheet affixed to the ingle continuous strip.

As to claim 39, it is inherent that at least one of the flat sheet and the single continuous strip of Kerr's device is formed by extrusion molding.

As to claim 44, Kerr discloses a method of continuously manufacturing a plurality of tags, comprising the steps of:

a. providing a single continuous strip 20

b. providing a plurality of inlays, each comprising a carrier sheet 20, an antenna 40 disposed on the carrier sheet and a wireless communication device 60 coupled to the antenna 40,

c. depositing the entire inlay onto strip 20

d. applying single continuous web 70 over the continuous supply of inlays (fig. 13)

e. cutting the continuous strip and the single continuous web between successive antennae to yield individual tag (this is inherent because each of RFID devices is for use on separate item or individual).

Kerr fails to disclose a plurality of cavities on the single continuous strip 20. However, Nowaczyk teaches a tag including a plastic casing comprising longitudinal cavities (fig. 2 or 3). In light of Nowaczyk's teaching, it would have been obvious to one skilled in the art provide a housing cavities on continuous sheet 20 as that disclosed in Nowaczyk to house the inlay of Kerr's because it would provide better protection of the inlays.

As to claim 45, though not disclosed Kerr or Nowaczyk, one skilled in the art would have readily recognized that it would be desirable to insure that the RFID device is secured within the casing; therefore, it would have been obvious to one skilled in the art to crimp the strip between successive antennae so the RIFD device is further secured. Also, one skilled in the art would also have readily recognized that the cutting step should be done after the crimping step because it is insured that the RFID device is securely housed before the strip is cut.

As to claim 47, Kerr discloses coupling a mounting adhesive to the continuous strip (para. 0047).

As to claim 48, in the combined system of Kerr and Nowaczyk, the single strip is inherently formed by extruding a sheet of material and then forming cavities in the sheet of material by thermoforming and wherein said single continuous web is formed by extrusion molding.

4. Claims 40-43 and 49-54 are again rejected under 35 U.S.C. 103(a) as being unpatentable over Kerr et al. (US 2001/0014377) in view of Babb et al. (US 2001/0014377).

As to claims 40-43, Kerr fails to disclose that the cover comprises a plug molded onto the single continuous strip. However, the concept of encapsulating an RFID inlay with an epoxy material is conventional in the art as discussed in Babb et al. (hereinafter as Babb) (see para. 0006). Therefore, it would have been obvious to one skilled in the art to do the same for the inlays of Kerr's system because such encapsulation with a molded plug of epoxy material would secure the RFID transponder within the cavity and insure the connection between the transponder and the antenna in Kerr's system. Furthermore, one skilled in the art would have readily recognized the use of different material and techniques as that claimed in claims 41-43 to form and cure the molded plug.

As to claims 49-52, Kerr discloses a method of continuously manufacturing a plurality of tags, comprising the steps of:

a. providing a single continuous member 20,

b. depositing an inlay into the continuous member 20, each inlay comprising a carrier sheet 30, an antenna 40 disposed on the carrier sheet 30, and a wireless communication device 60 coupled to antenna 40;

c. applying a cover 70, equivalent to a plug, over the inlay

d. cutting the single continuous strip between successive cavities (this is inherent because each of RFID devices is for use on separate item or individual).

Kerr fails to disclose a plurality of cavities on the single continuous strip 20. However, Nowaczyk teaches a tag including a plastic casing comprising longitudinal cavities (fig. 2 or 3).

In light of Nowaczyk's teaching, it would have been obvious to one skilled in the art provide a housing cavities on continuous sheet 20 as that disclosed in Nowaczyk to house the inlay of Kerr's because it would provide better protection of the inlays.

Kerr fails to disclose that applying a plug over each inlay. However, the concept of encapsulating an RFID inlay with an epoxy material is conventional in the art as discussed in Babb et al. (hereinafter as Babb) (see para. 0006). Therefore, it would have been obvious to one skilled in the art to do the same for the inlays of Kerr's system because such encapsulation with a molded plug of epoxy material would secure the RFID transponder within the cavity and insure the connection between the transponder and the antenna in Kerr's system. Furthermore, one skilled in the art would have readily recognized the use of different material and techniques as that claimed in claims 49-52 to form and cure the molded plug.

As to claim 53, it is inherent that the single continuous strip in Kerr is formed by extruding a sheet of material and then forming cavities in the sheet of material by thermoforming.

As to claim 54, this claimed feature is inherent in the combined system since the RFID tag must be complete before cutting or separation of the tags.

5. Claims 12, 14, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kerr et al. (US 2001/0014377)

As to claim 12, Kerr discloses a method of continuously manufacturing a plurality of tags, the method comprising the steps of:

a. providing a continuous supply of inlays (fig. 13), the continuous supply of inlays comprising a continuous carrier web 30, a plurality of antennae 40 positioned on the continuous carrier web 30 at spaced intervals and a wireless communication device 50 coupled to each of the antennae,

b. feeding continuous supply of inlays into an extruder(fig. 4) so as to yield a continuous block which includes the continuous supply of inlays surrounded by a plastic extrudates 70 and 20, and

c. cutting the continuous block between successive antennae so as to yield individual tags, this step is inherent because each tag is to use separately on a different item or individual.

Though Kerr fails to disclose a cross-head extruder, it would have been obvious to one skilled in the art to use a cross-head extruder in the Kerr extruding system because it is conventional in the art for applying layers of material on a web.

As to claim 14, though not clearly stated in Kerr's, one of ordinary skill would have readily recognized that cooling step must done only after the feeding step because the inlets must be formed before any other steps to be taken, and to wait for the continuous block to cool before cutting the continuous block into individual tag.

As to claim 15, Kerr discloses the step of coupling a mounting adhesive to the underside of the continuous block (para. 0047).

Allowable Subject Matter

6. Claims 13, 19, 36, and 46 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. Applicant's arguments have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julie Lieu whose telephone number is 571-272-2978. The examiner can normally be reached on MaxiFlex.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Benjamin Lee can be reached on 571-272-2963. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Julie Lieu/
Primary Examiner
Art Unit 2612

Apr 26, 09